

## ABSTRACT

A circuit construction for maintaining a constant extinction ratio of a laser diode for converting a high-speed burst signal to an optical signal is disclosed. In this construction, control is made so that a difference between average optical power of burst #1 wherein a modulation current  $I_m$  is set to a regular value and average optical power of burst #2 wherein a modulation current is slightly increased becomes equal to a reference value, and further control is made so that average optical power of burst #3 wherein the modulation current  $I_m$  is set to the regular value is equal to a reference value.